

4.2.C. 0601020703 (Beaver Creek).

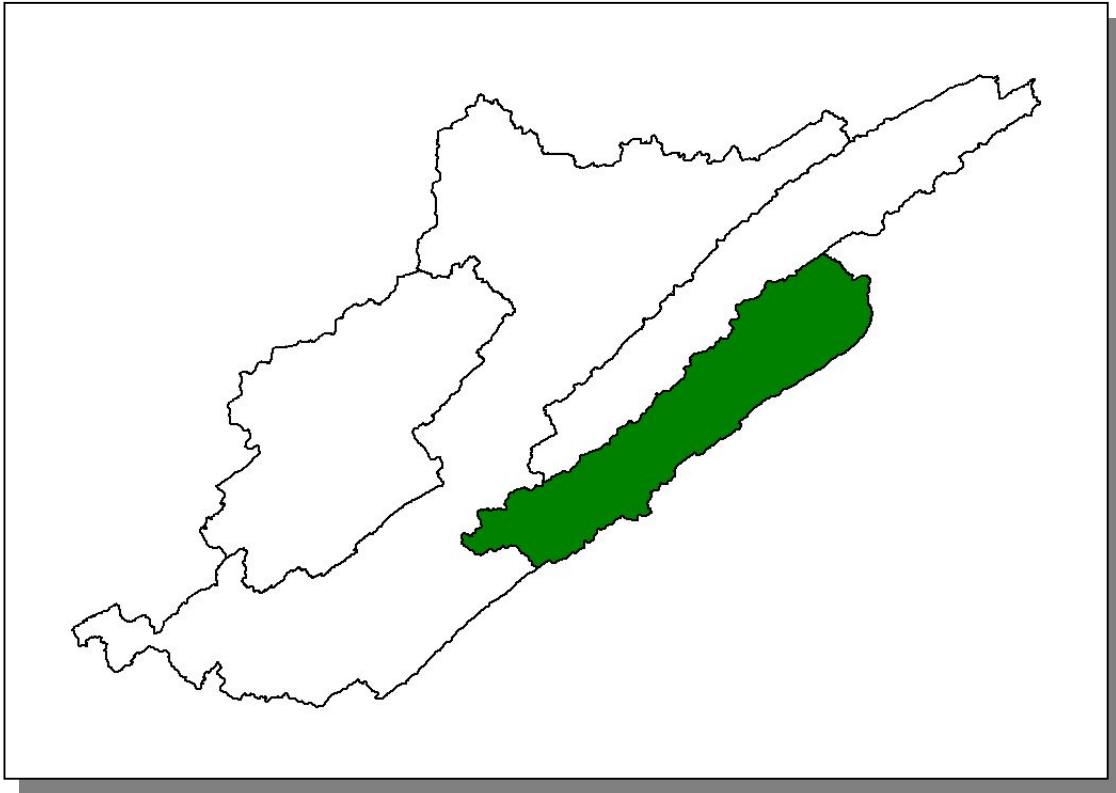


Figure 4-30. Location of Subwatershed 0601020703. All Lower Clinch River HUC-10 subwatershed boundaries are shown for reference.

4.2.C.i. General Description.

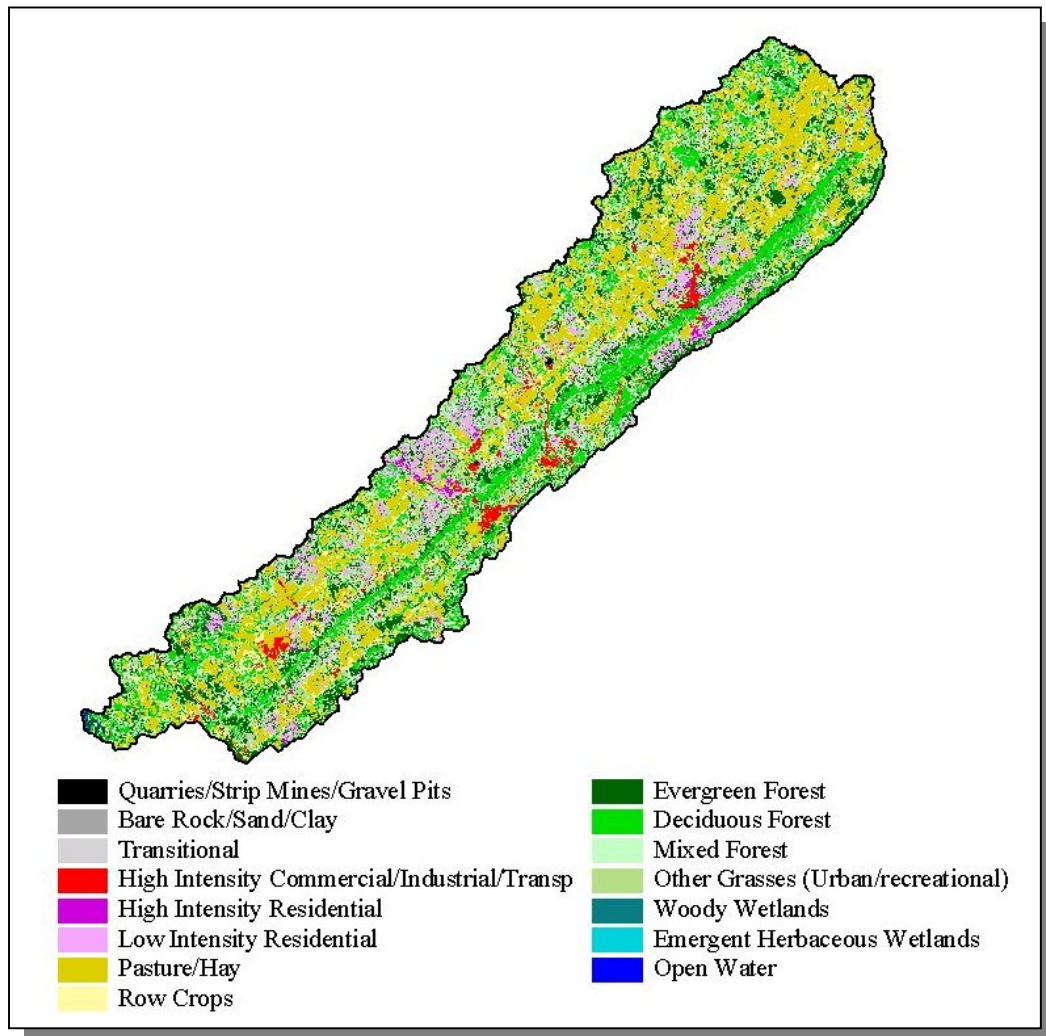


Figure 4-31. Illustration of Land Use Distribution in Subwatershed 0601020703.

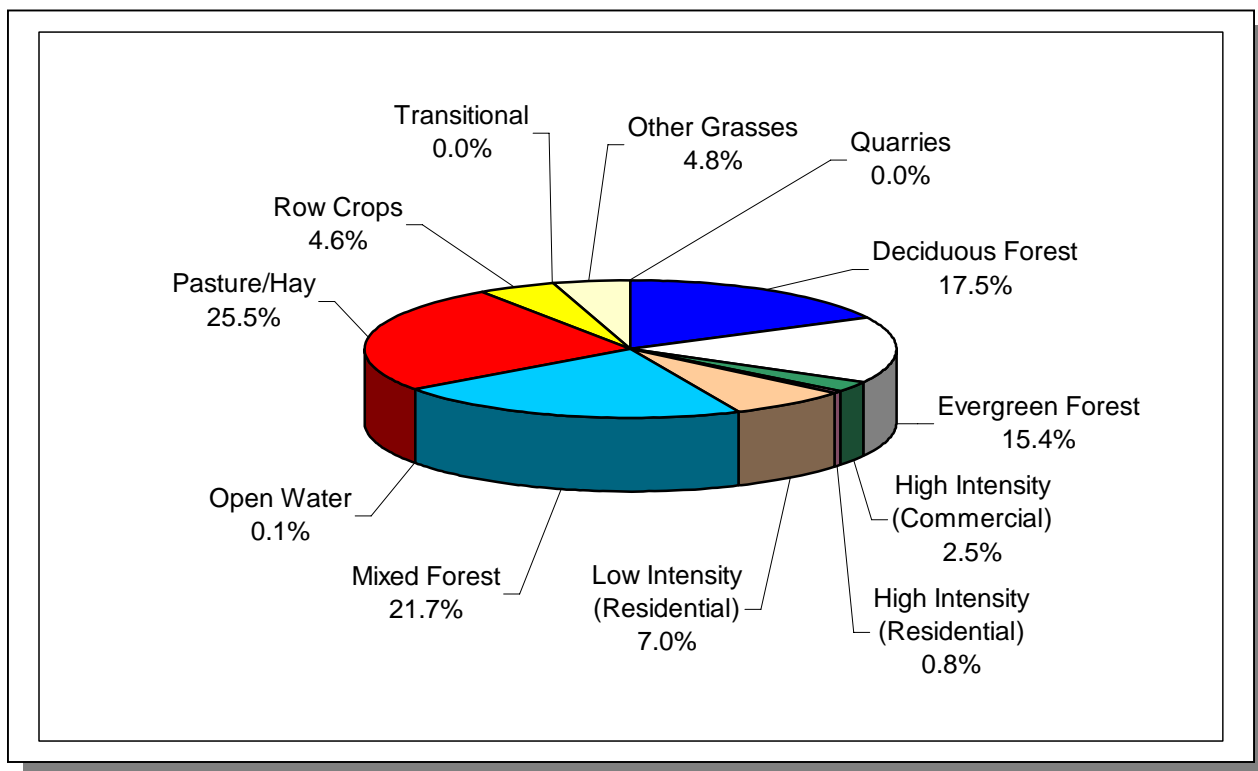


Figure 4-32. Land Use Distribution in Subwatershed 0601020703. More information is provided in Appendix IV.

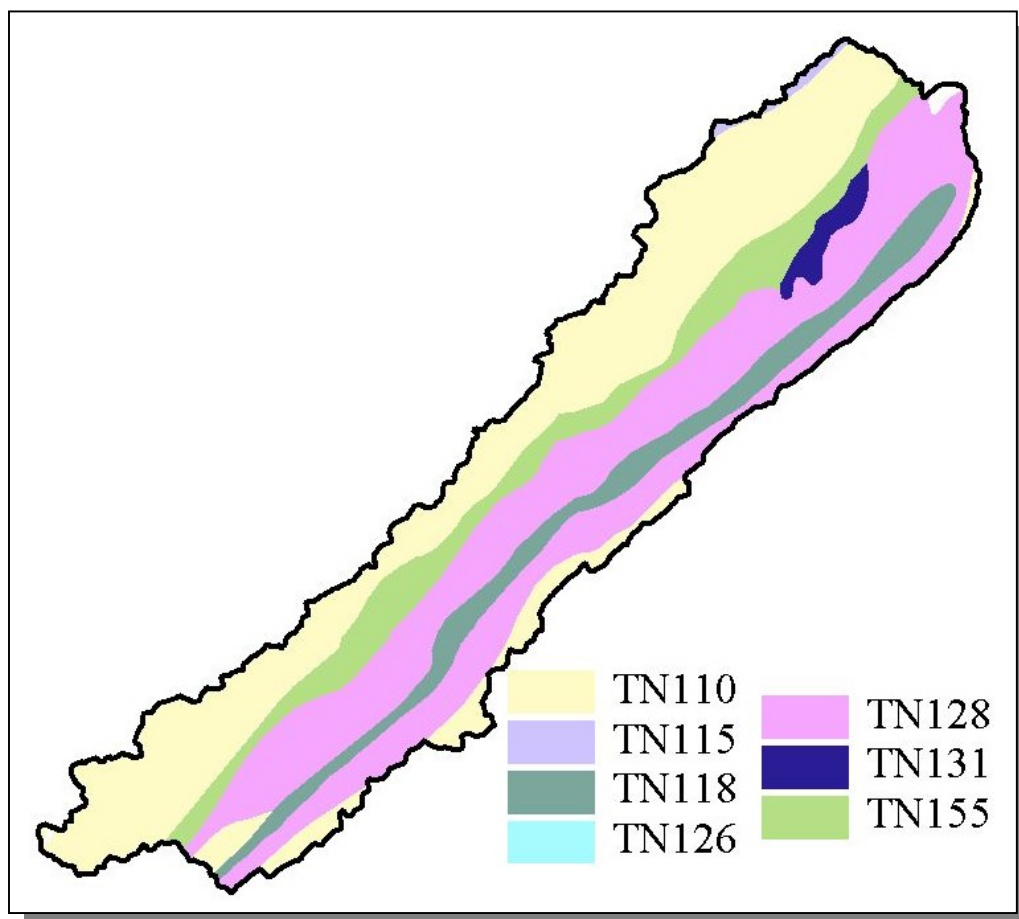


Figure 4-33. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0601020703.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN110	0.00	B	2.22	4.96	Loam	0.31
TN115	0.00	C	1.41	5.15	Silty Loam	0.36
TN118	0.00	C	6.52	5.12	Loam	0.29
TN126	19.00	C	1.30	5.12	Loam	0.33
TN128	0.00	C	1.30	6.53	Clayey Loam	0.26
TN131	0.00	C	1.17	4.95	Silty Loam	0.33
TN155	0.00	C	1.71	5.31	Loam	0.32

Table 4-21. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0601020703. More information is provided in Appendix IV.

County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-1997)
	1990	1997	2000		1990	1997	2000	
Anderson	68,250	71,498	71,330	0.08	56	59	59	5.4
Knox	335,749	365,900	382,032	17.11	57,457	62,617	65,378	13.8
Totals	403,999	437,398	453,362		57,513	62,678	65,437	13.8

Table 4-22. Population Estimates in Subwatershed 0601020703.

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
Knoxville	Knox	165,121	76,453	74,884	1,521	48

Table 4-23. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 0601020703.

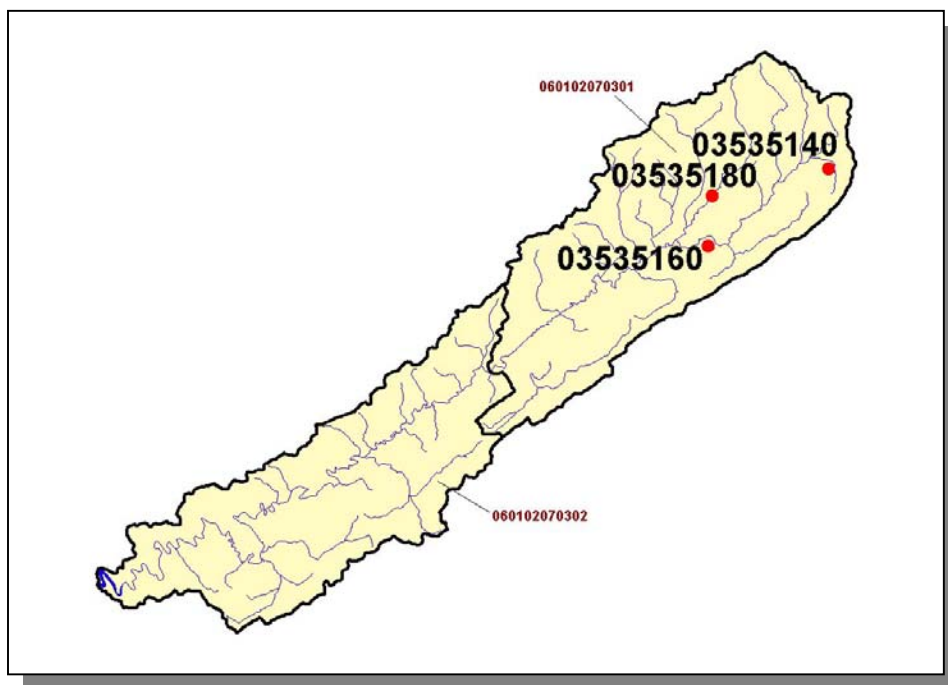


Figure 4-34. Location of Historical Streamflow Data Collection Sites in Subwatershed 0601020703. Subwatershed 060102070301 and 060102070302 boundaries are shown for reference. More information is provided in Appendix IV.

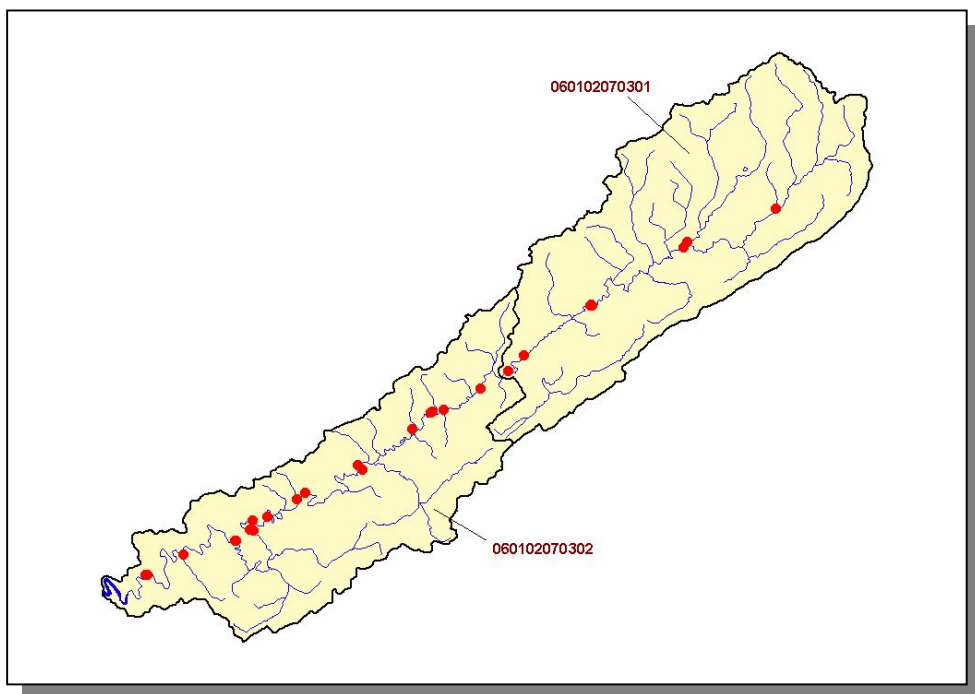


Figure 4-35. Location of STORET Monitoring Sites in Subwatershed 0601020703. Subwatershed 060102070301 and 060102070302 boundaries are shown for reference. More information, including site names and locations, is provided in Appendix IV.

4.2.C.ii. Point Source Contributions.

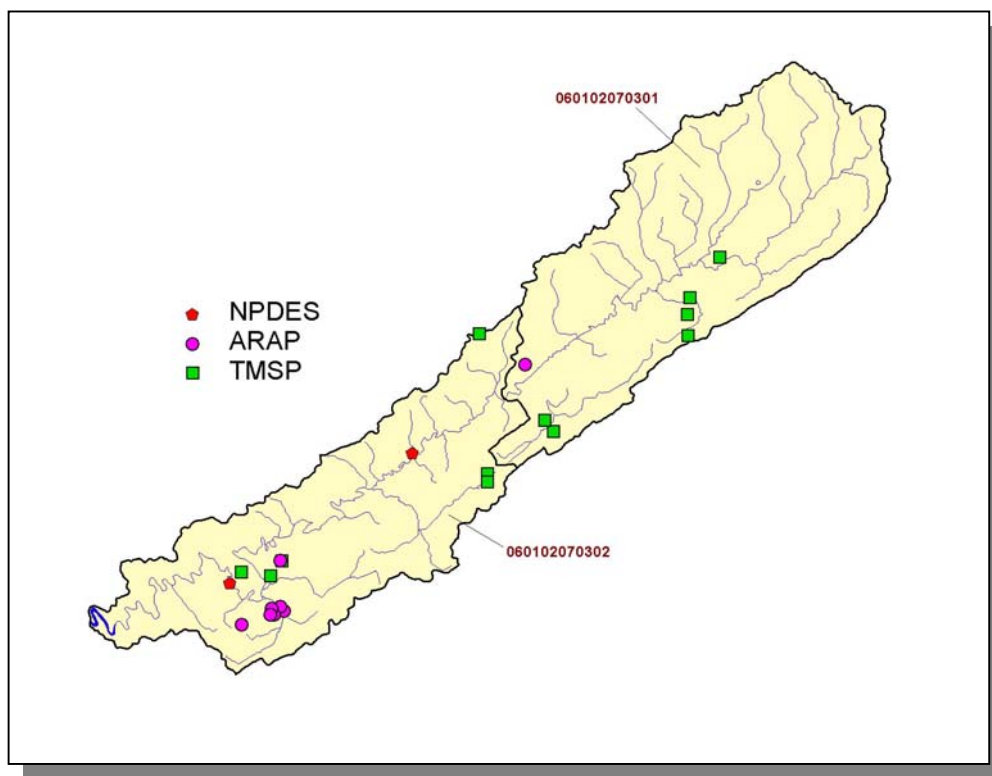


Figure 4-36. Location of Active Point Source Facilities in Subwatershed 0601020703. Subwatershed 060102070301 and 060102070302 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

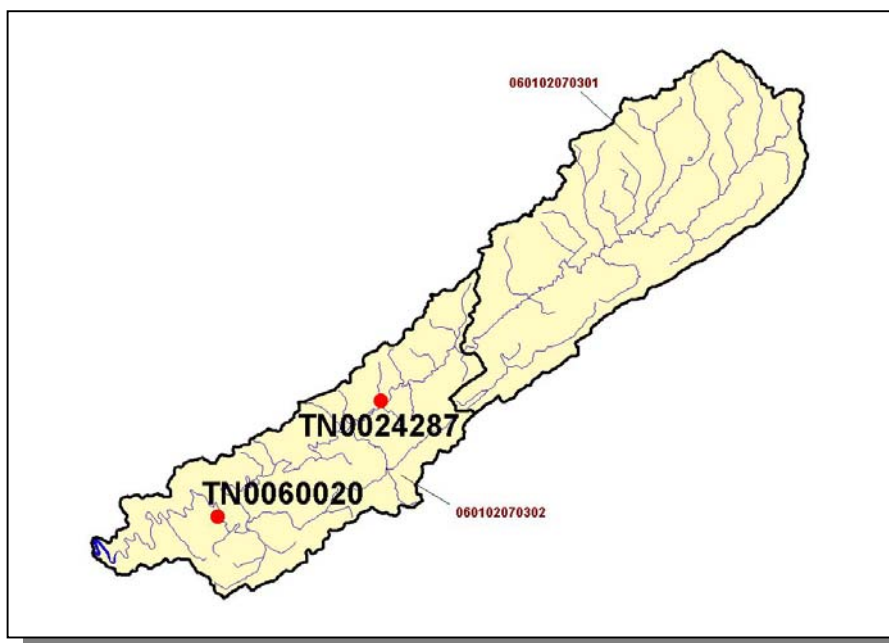


Figure 4-37. Location of NPDES Facilities in Subwatershed 0601020703. Subwatershed 060102070301 and 060102070302 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

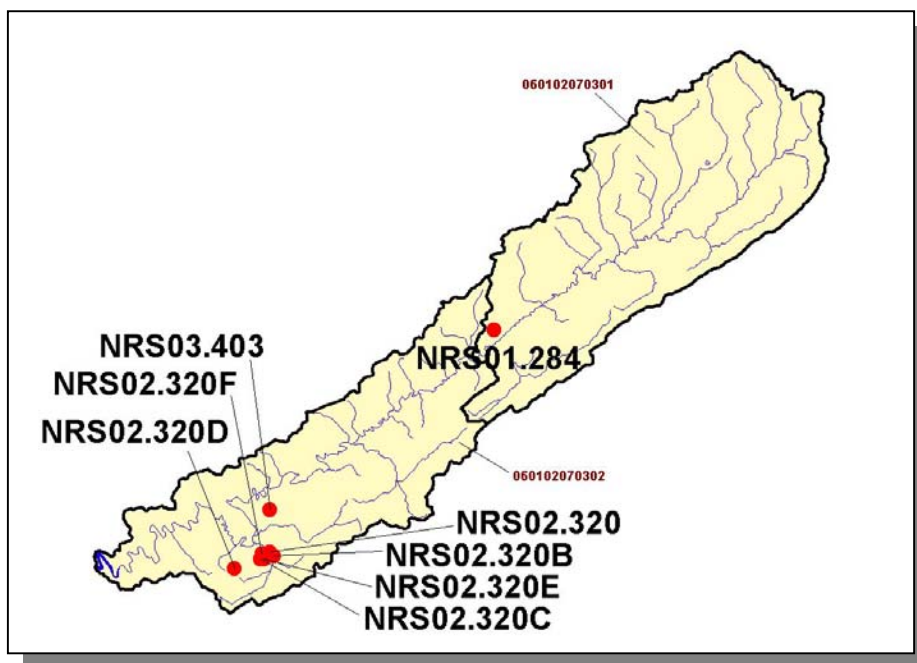


Figure 4-38. Location of ARAP Sites (Individual Permits) in Subwatershed 0601020703. Subwatershed 060102070301 and 060102070302 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

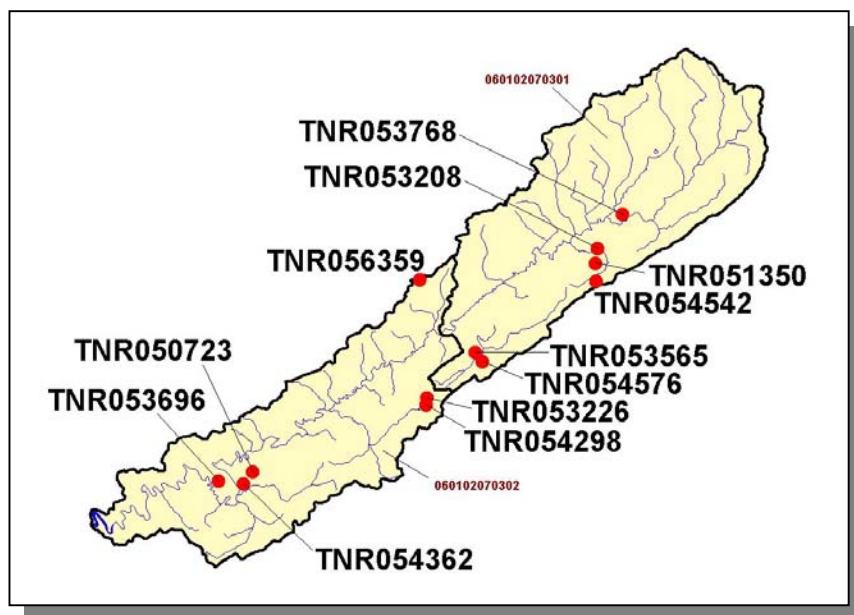


Figure 4-39. Location of TMSP Facilities in Subwatershed 0601020703. Subwatershed 060102070301 and 060102070302 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

4.2.C.ii.a. Dischargers to Water Bodies Listed on the 2002 303(d) List

There are two NPDES facilities discharging to water bodies listed on the 2002 303(d) list in Subwatershed 0601020703:

- TN0024287 (Hallsdale-Powell Utility District STP) discharges to Beaver Creek @ RM 23.5
- TN0060020 (West Knox Utility District-Karns Beaver Creek STP) discharges to Beaver Creek @ RM 10.7

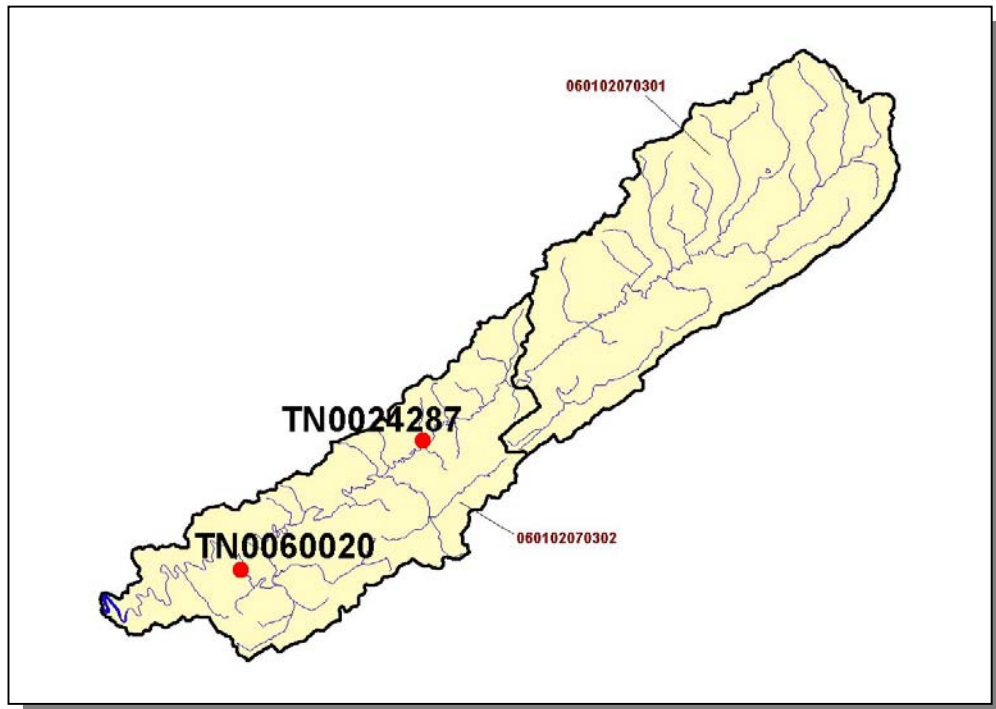


Figure 4-40. Location of NPDES Dischargers to Water Bodies Listed on the 2002 303(d) List in Subwatershed 0601020703. Subwatershed 060102070301 and 060102070302 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0024287	3.9	4.0	4.3	3.7	9.0
TN0060020	6.0	6.2	6.7	5.7	4.0

Table 4-24. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0601020703. Data are in million gallons per day (MGD). Data were obtained from the USGS publication *Flow Duration and Low Flows of Tennessee Streams Through 1992* or from permit files.

PERMIT #	TSS	TOTAL N	TOTAL P
TN0024287	X		
TN0060020	X	X	X

Table 4-25. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0601020703. TSS, Total Suspended Solids.

PERMIT #	WET	CBOD ₅	FECAL COLIFORM	E. COLI	Pb	Hg	NH ₃	SETTLEABLE SOLIDS	TRC	DO	pH
TN0024287			X	X		X		X	X	X	X
TN0060020	X	X	X	X	X		X	X	X	X	X

Table 4-26. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0601020703. WET, Whole Effluent Toxicity; CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.

4.2.C.iii. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)						
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens Sold	Hogs	Sheep
2,931	5,820	202	8	<5	201	153

Table 4-27. Summary of Livestock Count Estimates in Subwatershed 0601020703.
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Anderson	124.0	124.0	2.6	6.2
Knox	127.5	127.0	2.2	8.2
Totals	251.5	251.0	4.8	14.4

Table 4-28. Forest Acreage and Average Annual Removal Rates (1987-1994) in Subwatershed 0601020703.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.90
Legumes (Hayland)	1.07
Grass (Hayland)	0.12
Legumes, Grass (Hayland)	0.25
Grass, Forbs, Legumes (Mixed Pasture)	0.47
Forest Land (Not Grazed)	0.00
Forest Land (Grazed)	0.00
Corn (Row Crops)	1.10
Soybeans (Row Crops)	15.54
Tobacco (Row Crops)	1.62
Wheat (Close-Grown Cropland)	4.44
Other Vegetable and Truck Crops	12.06
Non-Agricultural Land Use	0.00
Other Land in Farms	0.23
Farmsteads and Ranch Headquarters	0.18

Table 4-29. Annual Estimated Total Soil Loss in Subwatershed 0601020703.